

REMARKS

Objection to the specification title

As noted above, Applicants have amended the title of the specification as required by the Examiner. No new matter has been added. The new title, "A METHOD AND APPARATUS OF SYNCHRONIZING COMPLEMENTARY MULTI-MEDIA EFFECTS IN A WIRELESS COMMUNICATION DEVICE," is indicative of the claimed invention. Applicants respectfully request the Examiner accept the amended title and withdraw the objection.

35 U.S.C. §102 rejections

The Examiner rejected claim 22 as being anticipated by the patent to Hayashi. In response, Applicants have amended claim 22 without adding new matter and traverses the rejection.

Claim 22 is directed to a method of synchronizing multi-media effects with an audio file in a mobile communications device. As amended, claim 22 recites that a processor in the mobile communications device, for example, calculate synchronization information based on the processor analyzing an audio file stored in memory of the device. This calculated synchronizing information is then used to synchronize a complementary multi-media effect in the mobile communications device (e.g., lights, video, tactile functions) with the audio file. "Calculating" synchronization information as claimed requires more than simply reading or extracting data that may be included with the audio file. Rather, it encompasses computing the synchronization information based on examining the data in the audio file.

The reference used to support the §102 rejection of claim 22 – Hayashi – does not teach this level of complexity. Hayashi discloses a mobile phone that downloads play data from a server via the Internet. *Hayashi*, pg. 5, ll. 20-22. The play data includes music information (i.e., melodic data such as tone frequencies and instrument types) and synchronization information.

The mobile phone of Hayashi uses the received play data to reproduce the music information as a melody, and uses the synchronization information to turn an LED or vibrator mechanism on and off with the melody.

Rather than calculating the synchronization information based on an analysis of the audio file, Hayashi provides the synchronization information with the downloaded file. In Hayashi, all operations related to rendering the audio and activating/deactivating the LED and/or vibrating mechanism are based on the data provided in and read from this file. *Hayashi*, pg. 5, ll. 4-6. Simply enabling/disabling LEDs or a vibrating mechanism according to the synchronization information already provided with a downloaded audio file does not teach calculating the synchronization information based on an analysis of the file. Therefore, Hayashi fails to anticipate amended claim 22, or any of its dependent claims.

The Examiner also rejected claims 41 and 57 as being anticipated by Hayashi for reasons similar to those cited above for claim 22. Claim 41 is a method claim directed to synchronizing one or more complementary multi-media effects with an audio file in a mobile communications device. Claim 57 is an apparatus claim directed to a microprocessor in the mobile communications device. Both claims 41 and 57 have been amended without adding new matter to include language similar to that of claim 22. Therefore, for reasons similar to those stated above, Hayashi also fails to anticipate claims 41 and 57 and all of their respective dependent claims under §102.

35 U.S.C. §103 rejections

The Examiner rejected claim 1 as being obvious over Hayashi in view of Brenner. Claim 1 is directed to a mobile communications device and has been amended to recite that a processor of the mobile communications device calculates synchronizing information based on

an analysis of an audio file, and synchronizes a complementary multi-media effect based on the calculated synchronizing information.

For the reasons stated above, Hayashi does not teach, or even suggest, amended claim 1. Nor does Brenner. Brenner discloses an audio format for an audio file that defines musical instrument information as well as commands that associate the musical information to light sources on a communication device. A processor in the Brenner device reads the embedded commands and determines whether they are associated with one or more of the light sources. The processor then controls the light sources according to these commands.

Indeed, Brenner modifies the audio file format especially to embed commands used to synchronize multi-media effects. These commands are then read and used as provided by the audio file. Brenner does not teach or suggest that the processor calculates synchronization information from these commands, but simply uses them "as-is." Thus, Brenner is no different from Hayashi, which necessarily leads to at least two conclusions. First, neither reference teaches or suggests a processor that calculates the synchronizing information based on an analysis of the audio file. Second, there can be no motivation to combine as both references teach including their respective synchronization information in the audio file.

Neither Hayashi nor Brenner teaches or suggests, alone or in combination, claim 1 or any of its dependent claims. Therefore, the §103 rejection fails as a matter of law.

The Examiner also rejected claims 11 and 31 as being obvious over Hayashi in view of Shibata. Claim 11 is directed to a mobile communications device having a user interface and memory that stores an audio file. The user may input synchronizing information, such as timing signatures, via the interface. A processor in the mobile communications device then associates this timing information with the audio file, and synchronizes the playback of the audio file with one or more complementary multi-media effects based on the user-supplied synchronizing

information. Claim 31 is a corresponding method claim, and has been amended to contain language similar to that of claim 11.

Hayashi, as the Examiner admits, fails to teach or suggest the claimed interface, but asserts that Shibata does. Shibata discloses a radio communication device that notifies a user of an incoming call using a complementary multi-media effect such as a vibration mechanism or lights, for example. According to Shibata, however, the disclosed radio communication device appears to notify the user using either a melodic ring tone or the complementary multi-media effect. As in Shibata, "the radio communication device ... effectively notifies an incoming call to a user of the radio communication device by means other than a ringer melody." *Shibata*, ¶ 0005 (emphasis added). Thus, Shibata is not even concerned with synchronizing complementary multi-media effects with an audio file as required by claims 11 and 31. This makes Shibata irrelevant to the claimed invention.

However, even if Shibata were to disclose synchronizing complementary multi-media effects with an audio file, Shibata does not teach or suggest that the user supplies the synchronizing information via an interface. Rather, Shibata discloses that a given melodic ring tone includes pre-defined "melodic line areas" that the radio communication device uses to control the multi-media effects. *Shibata*, ¶ 0026. These melodic line areas already include the information necessary to control the multi-media effects. According to Shibata, the user simply selects a particular melodic line area from among a plurality of predefined melodic line areas to control the effects. *Shibata*, ¶¶ 0028

Selecting a set of pre-defined information as in Shibata does not teach or suggest allowing the user to input the specific synchronizing information (e.g., a timing signature for a given audio file) directly via the interface. It does not allow a user to modify or alter the timing signature included with a file, or to provide a timing signature to an audio file that does not already have a timing signature, as does claims 11 and 31. Shibata does not teach or suggest

that the user can alter or create the information contained in the melodic line areas. Indeed, the user in Shibata needs only to select which pre-defined information to use.

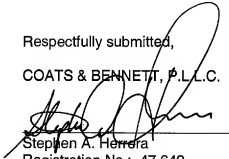
Thus, neither Hayashi nor Shibata teaches or suggests either of claims 11 or 31. Moreover, there is no motivation to modify Hayashi – which teaches providing synchronizing information with the audio file – with another reference that also teaches providing synchronizing information with the audio file. Therefore, neither Hayashi nor Shibata teaches or suggests, alone or in combination, either of claims 11 or 31, or any of their respective dependent claims.

Finally, Applicants have amended several of the dependent claims to ensure that they comport with the language of their respective independent claims. No new matter has been added.

In light of the amendments and their accompanying remarks, Applicant respectfully request the allowance of all pending claims.

Respectfully submitted,

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Dated: September 26, 2006

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